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ABSTRACT

Many psychological and physiological disorders may have some etiology in an unconstructive response to anger. Still others may be exacerbated by repressed or suppressed anger. Anger is often a problem for clients seeking therapy, yet psychologists have little research upon which to develop a viable therapeutic approach. While skills in communication appear to be effective in reducing angry feelings to maintain positive physical and mental health and to enhance interpersonal relationships, these skills seem to be difficult to learn. Four self-report measures have been used primarily in the assessment of anger arousal and expression and in the assessment of the effectiveness of anger management techniques. They are the Buss-Durkee Hostility Inventory, the Reaction Inventory, the Anger Self-Report, and the Anger Inventory. Several promising theoretical positions have been developed for treatment of maladaptive anger in people. Among these are the behavioral approaches of desensitization and social skills training. Cognitive behavioral techniques used involve an emphasis on some kind of restructuring of thoughts, with Rational-Emotive Therapy and stress inoculation training having been used primarily. Research has indicated that any direct intervention for treatment of maladaptive anger expression is better than none, and a multifaceted training program consisting of desensitization or relaxation training, stress inoculation, and social skills or problem solving training is best. Further research is needed to determine what role nonverbal communication may have in shaping anger responses. A four-page reference list is provided. (NB)

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A REVIEW OF THE CURRENT LITERATURE

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Doctoral Research Paper
for the Degree of Doctor of Psychology

ROSEMEAD SCHOOL OF PSYCHOLOGY

BIOLA UNIVERSITY

CAROLE LOU ANDERSEN

1985

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TREATMENT OF ANGER:

A REVIEW OF THE CURRENT LITERATURE

BY

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A doctoral research paper submitted to
Rosemead School of Psychology
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1985

TREATMENT OF ANGER:

A REVIEW OF THE CURRENT LITERATURE

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TABLE OF CONTENTS

	Page
ABSTRACT	iv
INTRODUCTION	1
ANGER: A PROBLEMATIC EMOTION.	3
Early Behavioral Manifestations	7
Need for Modalities of Treatment.	9
MAJOR APPROACHES TO TREATMENT.	10
Techniques for Anger Assessment	10
EVALUATION OF MAJOR TREATMENT APPROACHES	12
Behavior Therapy Treatment.	13
Cognitive-Restructuring Therapies	15
Summary of Research	24
Critique of Research.	25
CONCLUSION	26
REFERENCES	30

Abstract

Anger is one of the most discussed yet least studied emotions. This paper surveys the broad range of definitions for anger and presents the major theoretical treatment approaches and relevant research regarding them. It was noted that the consequences of overcontrol of anger can be devastating. Although some of our coping behaviors for anger are learned prior to language acquisition, the research indicated that direct intervention with a multi-faceted training program including desensitization, stress inoculation, and social skills or problem-solving training can produce the most positive change in clients with maladaptive anger.

Treatment of Anger: A Review of the Current Literature

The emotion of anger is often problematic for those seeking therapy. It is a much misunderstood emotion, one with which many people have difficulty. Anger is an intense emotional response which can be destructive to physical and emotional health and to relationships.

Many emotions can be understood as involving an approach-avoidance dimension in human interaction. However, many people find it difficult, if not impossible, to comprehend that expressing angry feelings in a constructive manner to one another can lead to greater intimacy (the approach dimension). Middle class American values seem to be based on the motto "anger left unexpressed is best." However, the consequences of over or under expression have the potential to lead to violent outbursts or physiological or psychological disorders. The therapist, then, may find it useful to understand the emotion of anger, the various pitfalls in not expressing it constructively, and clinical treatments for handling anger.

To handle angry feelings constructively is to experience emotion. Anger in and of itself is neither positive nor negative. It is a feeling that all humans feel.

A person who feels no anger could also feel no happiness, no joy, no sorrow, no other human emotion. Emotions encompass the length and breadth of experiencing one's total humanity. Without emotions life would be empty.

Discussions of anger in the psychological literature are most conspicuous by their absence. It is also rare to find anger represented in textbooks on personality theory. What little research there is has been conducted with specific "problematic" populations (e.g., law enforcement officers or probation counselors) or undergraduate college students, and so offer limited generalizability. There is little substantive research regarding treatment of anger-related problems with clinical populations.

Anger is, however, a popular topic in books aimed at the general population. They typically rely on clinical intuition and offer little empirical evidence. Some sample titles include The Angry Book (Rubin, 1969), Creative Aggression (Back & Goldberg, 1974), How to Get Angry Without Feeling Guilty (Bry, 1977), How To Live With and Without Anger (Ellis, 1977), and Anger, The Misunderstood Emotion (Tavris, 1982). The popularity of such books suggests that the emotion of anger is considered important, problematic, and worthy of investigation. Therefore, the purpose of this paper is to clarify the meaning of anger and then to review the current literature on the treatment of maladaptive anger. The paper will be divided into three parts: (a) meaning of anger and its problematic nature, (b) evaluations of the major treatment approaches, and (c)

conclusion.

Anger: A Problematic Emotion

Anger has a broad range of definitions which encompass physical and emotional dimensions, which are often problematic in interpersonal relationships. Rothenberg (1971) maintains that anger does not have to be interpersonally destructive. He notes that anger often occurs in response to feelings of need, love and involvement in relationships.

Anger is defined in the Dictionary of Psychology (Chaplin, 1973) as "an acute emotional reaction elicited by any of a number of stimulating situations, including threat, overt aggression, restraint, verbal attack, disappointment, or frustration, and characterized by strong response in the autonomic nervous system, particularly by emergency reactions of the sympathetic division and by implicit or overt attack responses which may be either somatic or verbal" (p. 28).

Stearns (1972) suggests that the anger response can be aroused by a variety of things, e g., what people say or do to provoke us or to thwart our objectives or memories (however selective) of such interpersonal offenses. Further, our tendency to get angry is influenced by many other kinds of things, including noise, crowding, internal stimuli such as hormonal imbalance, fatigue, etc.

Traditionally anger has been defined as a strong feeling accompanied by increased physiological components--the so-called "fight or flight" response (Madow, 1972). Anger

is a response to goal frustration or to some perceived danger, and the physiological response sets the body for action to either "fight" back or "flee" (flight). It has been noted by many authors, among them Madow (1972), Stearns (1972), and Wright (1979), that if the physiological responses persist too long or are engaged too often, physiological ailments of various kinds may result. The physiological responses can also seriously aggravate existing physical illnesses. It is often suggested in the literature that some psychological problems may begin in persons who suppress or repress a constructive expression of angry feelings (Bach & Goldberg, 1975; Madow, 1972; Stearns, 1972; Wright, 1979). While these authors' examples should be interpreted with caution, it is noteworthy that many interpersonal or intrapersonal problems may have some etiology in an unconstructive resolution of the anger response. There are also complications if anger is expressed too directly in an aggressive fashion.

A misconception of anger is the widely held belief that to "let go" will increase angry feelings. Yet, if anger is expressed constructively, less negative consequences of anger will be experienced (Madow, 1972; Walters, 1981). This hypothesis of a closed energy system in people which can be reduced by ventilation ("catharsis") was originally generated by Freud (cited in Wolberg, 1977). However, Wolberg further suggests that the beneficial effects of the emotional ventilation alone are often short lived. Any provocative conflicts which may arise in or among persons

without constructive mediation will usually accumulate tension again. The key concept is constructive expression, not just random release as might be understood to be catharsis. Walters (1981) suggests that if persons can learn to express angry feelings positively and lovingly, frustration and resentment will not accumulate as easily. He also suggests that potential for creativity in self and relationships can be released if hurt feelings or perceived errors are dealt with constructively. Walters suggests that angry feelings occur often between persons who are in a relationship that is important to at least one of them. Averill (1983) surveyed people about their everyday occurrences of anger. His results concur with Walters'. He found that people usually get angry with people they know, they like, and with whom they feel justified being angry. This further suggests that random catharsis is not enough, but constructive and meaningful communication can be important in reducing the negative consequences of the anger response.

Abrahamson (cited in Stearns, 1972) explains that constructive expression of anger can be a sign of emotional maturity, whereas hostility and hate characterize emotional immaturity. He differentiates between constructive anger "based on realism," and hostility "based on immature feelings of fear."

Anger is often considered a "negative" emotion, since it often leads to aggressive or hostile behaviors or strong feelings of hate or rage. The expression of angry feelings

can be considered the combination of perceived or socially sanctioned frustration of the pleasure principle combined with the aggressive "drive." Dynamic psychologists call this the ego function of frustration tolerance. This implies that behaviors people use to handle angry feelings are learned.

The potentially negative outcomes of mishandling angry feelings are not inevitable. Anger expression can be constructive. Anger is often inhibited because anger is a statement of need and vulnerability that many people try to hide.

Although most people can relate angry experiences in daily living, such as those surveyed by Averill (1983), it remains one of the least understood of human emotions. Novaco (1976a) suggests that "the arousal of anger is an emotional response to provocation that has identifiable autonomic, central nervous system, and cognitive components. Whether or not anger leads to aggressive behavior depends on the magnitude and appraisal of provocation, situational constraints, expected outcomes, and the person's preferred style of coping" (p. 1124). Novaco further suggests an analysis of the positive and negative functions of anger. He lists the following eight functions that anger may fulfill, the first four positive, and the last four negative.

1. Anger is an energizer. It gives us vigor, mobilizes the body's resources for self-defense, and provides stamina when a task gets difficult.

2. Anger can be a helpful way to express tension and communicate our negative feelings to others.
3. Anger serves as a cue to tell us that there is something unjust, frustrating, threatening, or annoying going on. It can be a signal that tells us it is time to cope with stress.
4. The arousal of anger creates a sense of being in charge of a situation. It potentiates a feeling of control.
5. Anger can also disrupt our thoughts and actions.
6. Sometimes anger is a way to defend ourselves when it is not necessary. "Defense" here refers to ego defense, where anger may occur as a protective reaction to feelings of vulnerability. Less anxiety is felt when one externalizes feelings of vulnerability by being angry.
7. Anger can instigate or lead to aggression.
8. Becoming angry is sometimes a way to promote an impression of ourselves to others, which may serve as a cover-up for less preferred characteristics such as being apprehensive, anxious or apathetic (Novaco, 1976a).

Early Behavioral Manifestations

The earliest manifestation of anger is the infant's cry or scream. From those early moments of life, there are frustrating events of not getting what one wants the moment one wants it (wanting to be fed, a diaper changed or be held). Thwarts to wants or wishes throughout the lifespan are inevitable (Madow, 1972). Very early, it seems, people

learn various approaches to these thwarts of wants and wishes, when to assert ones goals and when it is not as acceptable. The variety of frustrations are endless, yet many lead to anger. Whether and how we express our feelings of anger may be a matter of a person's psychological predisposition, combined with what is considered acceptable and therefore learned for that person's sex, for a given family, extended family, significant others (such as teachers, friends, clergy), ethnic background and culture, religious upbringing and training, socioeconomic group and societal sanctions.

Since many of the infant behaviors of reacting to thwarts of wants or wishes are learned on a nonverbal level, prior to acquisition of language and prior to the adequate ego resilience of frustration tolerance, how can positive expression of emotions be taught?

People might have much to gain from research in the nonverbal exchange of information regarding the expression of emotions that occur between parent and infant. Apparently, we grow up and learn not to scream, bite, throw tantrums, hit or cry when thwarted in some way. Unfortunately, constructive alternatives are not always at hand. For Western society and middle class culture, it appears the basic policy "anger left unexpressed is best" is learned early. Many people are then left with unrecognized and repressed anger from which the physiological, psychological or violent acting-out (including murder, suicide and spouse, child or parent abuse) manifestations

can fester. It is apparent that alternatives to violent expression of anger would lead to more productive living. Several writers consider a good alternative to be communication. Communicating anger effectively, however, is often difficult to learn.

Need for Modalities of Treatment

Behaviors that people use to handle angry feelings have been learned. Therefore, new ways to handle angry feelings can also be learned. This is the major assumption of many treatment programs for handling anger. Their goal is to expand the range of coping behaviors available to the client, which they believe will enable the client to optimize their emotional health. What seems to be hardest to learn are sufficient verbal exchanges to deal constructively with problem situations without undue risk to self-esteem. Theoreticians and researchers have just begun to address this problem. What has emerged are theoretical treatment approaches (usually behavioral or cognitive-behavioral) which are then tested empirically. The leading approaches for working with anger teach constructive communication in various ways. However, all approaches to communication training are not treatments for anger. Nor are treatments for anger merely assertiveness training or relaxation training, although any of these procedures can be involved in the treatment of anger.

The following section discusses the measures of anger used to assess it as a clinical problem and to measure the effects of treatment for coping with anger. This will be

followed by a review of the most prominent therapeutic appraoches used for the treatment of maladaptive anger, which cognitive-behaviorists usually call "anger management." "Maladaptive" anger means a problematic or destructive behavioral response which can lead to negative personal or interpersonal consequences (Mischel, 1976).

Major Approaches to Treatment

Techniques for Anger Assessment

Clinical psychological research on anger has not accumulated a body of knowledge sufficient for broad application to the myriad of potential problems associated with maladaptive anger. Novaco (1977b) calls this a "puzzling state of affairs" (p 600).

Work has been started to assist in the assessment of anger arousal and expression and in assessing the effectiveness of anger management techniques. Four measures have been used primarily. They are the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957), the Reaction Inventory (Evans & Stangeland, 1971), the Anger Self-Report (Zelin, Adler, & Myerson, 1972), and the Anger Inventory (Novaco, 1975). They are all self-report measures.

The Buss-Durkee Hostility Inventory (BDHI) (Buss & Durkee, 1957) attempts a descriptive and quantitative analysis of an individual's preferred mode of hostility expression, using true-false items. It includes subscales for eight types of hostility: assault, indirect hostility, irritability, negativism, resentment, suspicion, verbal

hostility and guilt. It also assesses social desirability.

The Anger Self-Report (ASR, Zelin, Adler, & Myerson, 1975) differentiates between a person's awareness of anger and its actual expression. Persons respond to each of 64 items on a 5-point rating scale rating from "none" to "very much" which yields separate scores for awareness of anger, expression of anger (including subscales for general, physical, and verbal expression), guilt, condemnation of anger, and mistrust.

In contrast, the Reaction Inventory (RI) (Evans & Stangeland, 1971) and the Anger Inventory (AI) (Novaco, 1975) measure the propensity to become angry, and an individual's willingness to admit and express those angry feelings. The RI is a clinical instrument used to identify in individuals the specific stimulus situations which result in anger. It is a 5-point scale ranging from "not at all" to "very much" depending upon the degree of anger provoked by the situation, as judged by the respondant. In like manner, the AI is an index of anger reactions to a wide range of provocations. They are assessed by presenting individuals with 80 potentially anger provoking incidents with which they respond on a 5-point scale according to the degree of anger that they would experience in such situations.

In a comparative study conducted by Biaggio (1980), she administered all four instruments to 150 students. In a correlation matrix analysis, she found that the RI and AI correlated significantly with each other. Both scales were found to assess the propensity for anger arousal. Neither

correlated with the BDHI or the ASR. However, the BDHI and the ASR were found to be similar to each other in measuring anger/hostility expression. Apparently, the two pairs of assessment instruments measure something unique in the anger response.

The author notes that anger research has much relevance to clinical problems such as anger-proneness, anger-inhibition, some psychosomatic disorders, and anger related communication problems. She also acknowledges the difficulties of doing quantifiable research on emotional states. She concludes, "Psychology is long overdue . . . and has much to gain from adequate formulation, assessment and treatment of anger problems" (p. 298). It is her hope that anger scales such as these can assist in that endeavor.

An assessment tool is needed to measure a person's anger response and to evaluate the effectiveness of treatment. The next section discusses the major treatment approaches and research.

Evaluation of Major Treatment Approaches

There are several well regarded theories concerning treatment approaches for the problem of anger. The most researched theories use primarily behavioral or cognitive-behavioral techniques.

This section reviews treatment approaches and relevant research. The behavioral approaches include desensitization and coping skills training. The cognitive therapies involve an emphasis on some kind of restructuring of thoughts

(cognitions). Two approaches are used primarily: Rational-Emotive Therapy (RET) developed by Ellis (1962) and Novaco's Stress Inoculation (1975). Additionally, there is a case for using affective imagery as an adjunct to treatment.

The conclusion of this section summarizes a study comparing three treatment approaches: stress inoculation, social skills and problem solving. In general, outcome studies have found that any intervention is better than none, and multi-faceted treatment packages seem to be even better.

Behavior Therapy Treatment

The behavior therapy techniques that have been used in the treatment of maladaptive anger are desensitization and social skills training. Warren and McLellarn (1982) reviewed three case reports and five controlled studies which assessed the effectiveness of systematic desensitization as a treatment of anger-based problems (the target behavior--maladaptive anger).[1] Desensitization uses relaxation training and a client's hierarchy of anger-provoking events in an attempt to induce antagonistic responses (such as relaxation) to occur in the presence of mildly anger evoking stimuli, so that the incompatible response will at least partially prevent the anger response. Thus, the association between the aversive stimulus and anger becomes reduced, while the association of the stimulus with the relaxation reaction is strengthened (Mischel, 1976). This approach assumes that the physiological aspect of anger is central, and that relaxation would then be an

incompatible response for clients experiencing angry feelings.

Despite methodological flaws in the studies, Warren and McLellarn (1982) have guarded optimism regarding the effectiveness of desensitization. All the studies demonstrated some significant therapeutic effects in reducing anger at post-treatment. However, no follow-up data were gathered beyond eight weeks. The authors suggest that desensitization should be at least a part of treatment for maladaptive anger.

Rahaim, Lefebvre and Jenkins (1980) used a social skills training model to study its effectiveness for anger management. They postulated that poor social skills rendered a person incapable of expressing anger appropriately. Social skills training was used to teach the client appropriate ways of expressing emotions. It involved four components: (1) Instructions: The trainer described the particular component or target behaviors to be taught (e.g., eye contact, posture, gesturing, directness) together with a rationale for their use. (2) Modeling: The clients observed a videotape of the trainer making appropriate responses in scenes specifically developed for them, and they were instructed to pay attention to the targeted bahavior. (3) Behavior Rehearsal: The clients role-played the scenes. (4) Feedback: The trainer gave immediate verbal feedback on the client's performance on the targeted skill. A 30-year-old male police officer requesting assistance in controlling his anger on the job was trained

in the social skills techniques. He was treated in role-playing situations and given self-report measures concerning his progress. The social skills training had some effect in changing his behavior and also appeared to alter his thoughts in anger-provoking situations.

Desensitization techniques and social skills training were demonstrated to be effective in management of maladaptive anger. It was proposed that the arousal of anger involves autonomic, central nervous system and cognitive components (Novaco, 1976a). A central assumption of cognitive therapies is that the pattern of self-talk is central to one's ability to cope successfully with frustrating events. Rational-Emotive Therapy developed by Ellis (1962) and Stress Inoculation used by Novaco (1975) and others are the primary examples of this therapeutic approach.

Cognitive-Restructuring Therapies

Personal cognitions are often regarded as mediators of behavior. Cognitive factors are important determinants of how emotional arousal is experienced and labeled. Emotional states seem to be defined by a person's cognitive structuring of a situation (Novaco, 1976a). Konečni (1975) demonstrated the importance of cognitively labeling one's arousal as anger. He found that people who are physiologically aroused by unpleasant noise and insults label themselves as feeling angry. Men were more overtly aggressive than women, but they both reported similar feelings and arousal states, especially when they felt they

had a good reason to be angry (as when insulted). Using the correct label for arousal states, then, is important in treating people with anger management difficulties.

To further test this hypothesis, Garrison and Stolberg (1983) used affective imagery to treat 10 children ages 8 to 11 initially identified as "angry." Treatment consisted of the children imagining recent events from their own experience which were affectively laden, attending to the associated physiological responses (e.g., muscle tension, heartbeat) and labeling the emotion associated with the physical state. The emotions elicited were fear, anger, sadness, or happiness. By this process, the children learned internal cues for differentiating between feelings and learned to build cognitive structures associated with the affective states. This tended to reduce the children's behaviors which might be associated with the mislabeling of emotions. It was shown by Garrison and Stolberg that affective imagery training reduced angry behavior and cognitions in "angry" children more than was the case with either of the two control groups. Thus, the technique benefited both those children who mislabeled their feelings, and those who lacked experience with specific emotions.

Cognitive labeling of events is a key theoretical concept in the cognitive behavioral therapies. One widely used version is Rational-Emotive Therapy.

Rational-Emotive Therapy (RET) was developed primarily by Ellis (1962). Ellis wrote a popular "how to" book concerning anger management in 1977. His book promotes

dealing with anger using RET. The basic assumptions of RET are that there is an Activating experience, your Beliefs intervene, which leads to emotional Consequences (ABC model). A cannot cause C directly. According to Ellis, the "wrong" beliefs invariably stem from insisting that something you want has to exist. The focus of therapy is to present in a logical, persuasive manner the clients' perception-of-action (A), interpretation-of-action (B), and resultant-feeling (C) to point out the "wrong" beliefs and encourage change. The therapist's role is to help the person to detect and alter these maladaptive cognitions.

RET usually involves the following components:

1. Direct instruction and persuasion toward the basic RET premise (i.e., that irrational thoughts play an important role in subjective distress).
2. Recommendations to monitor one's thought patterns.
3. Modeling of a rationalistic evaluation and modification of personal thought patterns.
4. Candid feedback (positive and negative) on reported changes in thinking patterns and self-evaluation.
5. Performance assignments and rehearsal tasks to improve discrimination and evaluation of performance-relevant cognitions. (Mahoney & Arnkoff, 1978, p. 704)

Ellis, then, stresses change in cognitive aspects of people's belief systems. These include the "awfuls," "shoulds," and "musts" as problem-related inner dialogues.

Little outcome research is available to test empirically Ellis' widely held notion that irrational beliefs are mediators of client problems (i.e., that absolutistic, catastrophic thinking leads to dysfunctional affect and behavior). However, Zwemer and Deffenbacher

(1984) gave self-report measures for anger, anxiety, and irrational beliefs to 382 college students (201 males and 181 females). Anger was correlated with the beliefs of personal perfection, anxious overconcern (the need to worry incessantly about possible negative events), blame proneness (seeing events as wrongful provocations deserving punishment), and catastrophizing (the belief that the eventuality of such events would be devastating). They conclude: "None of these beliefs . . . promote a calm approach to difficult situations through which alternative coping skills might be learned and the vulnerability to anger . . . lessened" (Zwemer & Deffenbacher, 1984, p. 393).

Conoley, Conoley, McConnel and Kimzey (1983) attempted to test three therapeutic approaches for dealing with an anger provoking event. They compared the effectiveness of Rational-Emotive Therapy vs. the Gestalt empty-chair technique vs. a reflective listening control group. Sixty-one college females were recruited for the study. The anger stimulus was one of five recent events which each person reported becoming angry about. Both the empty chair technique and the Rational-Emotive Therapy approach were more effective in reducing systolic blood pressure on self-reported anger than was the reflective listening control group. The Rational-Emotive Therapy had a trend toward being more effective than the empty chair technique on the self-report measure, but it was not statistically significant.

Another approach to anger management is stress inoculation. Stress inoculation, originally proposed by Meichenbaum and colleagues for the treatment of anxiety, has been adapted by Novaco for anger management. The cognitive mediational factors for anger are thought to be a function of appraisals, attributions, expectations, and self-statements that occur in the context of provocations" (Novaco, 1977, p. 600). Thus, he suggests that restructuring cognitions is essential to the control of anger arousal and consequent aggressive behavior.

The treatment of anger management proposed by Novaco consists of three stages:

Stage 1: Cognitive preparation. Educates the person about the functions of anger and about their personal anger patterns. Provides for a shared language system between client and therapist, and introduces the rationale of the treatment approach.

Stage 2: Skill acquisition and rehearsal. The person is familiarized with the three sets of coping techniques (a task orientation, self-instructions, and relaxation skills), modeling of the techniques by the therapist and then rehearsal by the client.

Stage 3: Practice and Application. The person is exposed to manageable doses of anger stimuli by means of imaginal and role-playing inductions (Novaco, 1976a).

This treatment package is based on the concept of developing competence in the person for adaptation to anger provocations. The term inoculation is a medical metaphor.

It refers to the therapeutic task of developing coping skills in the client and then exposing the client to manageable doses of a stressor that would normally cause anger. It is hoped the client will build up "immunity" to anger provoking events that are likely to generalize to life situations. The goals are to reduce stress and to achieve personal goals.

Apparently, stress inoculation has been investigated more than other theories of anger therapy. It has been used to treat a variety of people. These included a normal population (Novaco 1976b), law enforcement officers (Sarason, Johnson, Berberich, & Siegel, 1979), a brain damaged person (Lira, Carne, & Masri, 1983), hyperactive boys (Hinshaw & Henker, 1984), mildly retarded people (Golden & Consorte, 1982), and a clinically depressed person (Novaco 1977b). In all cases there was a reduction of difficulties with anger outbursts.

Anger management problems were investigated using a normal population by Novaco (1976b). He found that people who were identified as having "anger control problems" responded best to a combined training package of self-instruction (or cognitive-coping) and relaxation training when measured by the Anger Inventory. The self-instruction alone group was only slightly different. Novaco concluded that self-instruction training was sufficient to teach people constructive communication of angry feelings.

People in stressful occupations were trained in stress

inoculation to help them deal with anger. Eighteen police academy trainees (10 men and 8 women, aged 22 to 34 years) were assigned to a stress inoculation training group or a control condition consisting of a short course in abnormal psychology by Sarason, Johnson, Berberich and Siegel (1979). The stress program was designed to develop an awareness of anger responses which can interfere with a law enforcement officer's performance on the job. This was accomplished through a stress inoculation program consisting of role-playing, modeling, and self-monitoring of responses during mock stressful situations.

The authors found that these law enforcement officer trainees experienced significantly higher levels of hostility at the end of the treatment program. One possible explanation of this phenomenon provided by the authors was that the higher self-ratings of anger reflected increased awareness of their own responses after the training. It was suggested that these trainees may benefit from the stress inoculation training once they have incorporated it with the performance of their duties.

Since it is routine for probation counselors to encounter clients having problems with anger, five juvenile probation counselors were trained using stress inoculation (Novaco, 1980). Four matched counselors served as a nonrandomized control group. Novaco states,

> The goals of treatment were to prevent anger from occurring when it is maladaptive, to enable the person to regulate arousal and concomitant cognitions when provocation occurs, and to develop behavioral skills needed to manage provocation experiences in a problem-solving manner. (p. 386)

The participants in the counselor-training project subjectively evaluated the training sessions as useful and informative, demonstrated greater knowledge and more positive attitudes concerning the target problem following training than did a comparison group. They also performed with greater proficiency than did the control counselors on an unannounced test interview two months after training. He did not investigate what effect this training had on the counselors' actual functioning with real clients or on the target behaviors of clients themselves.

Several groups of people identified as having particular difficulties with anger management have been trained in stress inoculation. Rhoades (1982) used stress inoculation to treat 19 male and 2 female forensic inpatients who had consistently shown difficulty handling their anger There was a significant self-perceived reduction in their anger arousal compared to a control group, which was maintained for at least one month following treatment. However, there were no perceived improvements in anger management according to staff ratings.

In another study, stress inoculation training was given to a 22-year-old man who had suffered severe head trauma at age 16. At a five-month follow-up, there were significant treatment gains. During that time, he had procured part-time clerical employment and was living independently. Family members, a vocational counselor, and his employment supervisor reported an absence of severe anger outbursts (Lira, Carne & Masri, 1983).

Hyperactive boys aged 8 to 13 and four mildly retarded persons aged 19 to 54 were treated with some form of stress inoculation training in two other studies. The cognitive-behavioral treatment was successful in helping these people enhance general self-control and to use specific coping strategies when presented with frustrating, anger-provoking situations (Hinshaw, Henker, & Whalen, 1984; Golden & Consorte, 1982).

One study investigating stress inoculation training with a clinically depressed man was conducted by Novaco (1977b). After assessing the man's mode of expressing anger, Novaco determined that the man overcontrolled his anger at work, actively suppressing it until an episodic verbal explosion. At home, the man was quicker to express his anger when annoyances occurred and often hit his children. After treatment, he exhibited less impulsive punishment of his children and greater self-regulation of his anger response. Although ratings were not obtained from his wife, the author comments, "she consistently remarked that he was showing progressive improvement, in marked contrast to his previous behavior" (p. 605).

In a recent comparative study by Moon and Eisler (1983), the relative effectiveness of stress inoculation training, social skills training, problem solving training, and an attention control group were used to treat 40 undergraduate men to reduce anger. The men scored above the mean on Novaco's Anger Inventory at pretreatment. They were

randomly assigned to one of four groups. The stress inoculation group significantly reduced anger-provoking cognitions but did not appear to increase appropriate assertiveness. The problem-solving and social skills training groups both reduced anger-provoking cognitions and increased assertive or socially skilled behaviors. Further, the social skills and problem-solving groups appeared to interact competently with the social environment whereas the stress inoculation training group seemed to withdraw from anger-provoking stimuli. The authors suggest that "this could presumably be related to the cognitive technique's emphasis on a covert, reinterpretative type of anger reduction strategy" (p. 504), whereas the social skills and problem-solving groups appeared to be given more flexibility and social tools for interacting with the environment in new ways.

Summary of Research

It was shown that for several specific target groups, some kind of intervention concerning treatment of overt anger and its management was useful. According to the comparative study by Moon and Eisler (1983), stress inoculation alone was not sufficient in helping people interact positively with anger producing stimuli. However, their results should be interpreted with caution, and other studies are needed before making a final decision to discard Novaco's treatment.

Stress inoculation, desensitization training, and social skills or problem-solving training appear to make an

effective treatment package for the management of maladaptive anger. Affective imagery techniques may prove good adjunctive therapeutic techniques, especially with groups that may mislabel or cannot label affective arousal appropriately (Garrison & Stolberg, 1983).

Therefore, when anger provoking stimuli are presented to people, it is apparent that intervention can produce new learning and change maladaptive behaviors.

Critique of Research

Several points should be made concerning the research reviewed. It is hoped that the following evaluations and suggestions might be considered in future research.

1. Overt maladaptive anger has been the target of treatment. It would be interesting to see research on the more subtle forms of anger-arousal (such as guilt inducement, hurt feelings, ego threatening situations or physiologically-induced angry feelings).

2. Research has been conducted primarily with non-clinical populations. There is a need for more thorough research with clinical groups.

3. Most empirical investigations have used contrived situations with limited generalizability.

4. There is a problem with exclusive reliance on self-report measures. There is evidence that there is a lack of correspondence between self-reports of behavior and actual behavior or physiological correlates of behavior. Self-report measures are also confounded by the social desirability response bias. Behavioral and physiological

measures need to be developed and used.

5. It must be pointed out that the apparent success of these new therapies may be due to their novelty. Only with time and in comparison to other treatment approaches can long-term benefits be calculated.

6. Many of these studies have not included an equally credible attention-placebo comparison group. This is necessary to control for non-specific therapeutic effects.

7. No study assessed client or therapist expectancies for outcome. Such expectations might be important confounding variables.

8. There was little follow-up data. This is necessary to indicate whether effects are enduring.

9. Many behaviors for handling angry feelings are shaped nonverbally in the parent-child dyad. Research concerning the nonverbal communication of angry feelings is needed. This could help teach parents how to help their infants develop adequate coping skills and provide data concerning adults' nonverbal exchange of angry feelings.

Conclusion

Anger is often a problem for clients seeking therapy, yet, to date, psychologists have little research upon which to develop a viable therapeutic approach. Many popular books, however, contain prescriptions for handling angry feelings constructively. Anger expression is not always negative, although in our middle class American culture, the implicit motto seems to be "anger left unexpressed is best."

The consequences of overcontrol are dramatic, however. Many psychological and physiological disorders may have some etiology in an unconstructive response to anger. Still others may be exacerbated by repressed or suppressed anger. However, acting-out in a nonconstructive manner is not a viable alternative. Murder and suicide are perhaps the extreme result of unconstructive anger expression. Although some of our coping behaviors for anger are learned prior to language acquisition, subsequent skills in communicating appear to be effective in reducing angry feelings to maintain positive physical and mental health and to enhance interpersonal relationships. These skills seem to be difficult to learn directly from the environment because expressing angry feelings can be interpreted as a statement of need and vulnerability which many people try to hide.

Several promising theoretical positions have been developed for treatment of maladaptive anger in people. Among them are the behavioral approaches of desensitization and social skills training. Additionally, cognitive-behaviorists have pointed out the importance of people understanding their inner self-talk. They have proposed treatment packages to help people regulate their inner cognitions to deal better with anger-provoking events. Rational-Emotive Therapy and stress inoculation training have been used primarily. Although the research is still meager, behavioral and cognitive-behavioral anger treatment programs have been found to be useful for people who can

describe their propensity for becoming angry or who can report how and under what circumstances they may express their anger.

The research indicated that any direct intervention for treatment of maladaptive anger expression is better than none, and a multi-faceted training program consisting of desensitization or relaxation training, stress inoculation, and social skills or problem solving training is best. It remains for further investigation to determine what role, if any, nonverbal communication may have in shaping anger responses. It was suggested that psychologists might benefit from research concerning the more subtle forms of eliciting anger. Also, measurement criteria using behavioral and/or physiological indices might prove useful.

Such improvements in research could hasten the day when therapists have more effective, empirically supported approaches to help clients handle their anger constructively.

Footnotes

[1] Evans, D.R., (1971). Specific aggression, arousal, and reciprocal inhibition therapy. Western Psychologist, 1, 125-130.

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